What is claimed is

1) An absolute measuring system (1, 12) for the determination of angles or paths, whose encoder (1) is fed during normal operation by a voltage supply (mains) (14, 19) , where the encoder (1) may be switched to an auxiliary power supply which uses less energy when the voltage supply (14, 19) fails, and where there is only a coarse determination of the measured value made during this mode of operation, in particular according to patent ...(patent application 103 120 45.9), characterized in that a chargeable memory (2) is provided and assigned to the encoder (1) to maintain the auxiliary power supply.

2) A measuring system as recited in claim 1, characterized in that the memory is a battery (2).

3) A measuring system as recited in claim 1, characterized in that the memory is a chargeable condenser.

4) A measuring system as recited in claim 1, characterized in that the memory is a chargeable battery and a chargeable condenser.

5) A measuring system as recited in claim 1, characterized in that the memory is a chargeable condenser and a non chargeable battery.

6) A measuring system as recited in one of the claims 1 to 5, characterized in that the chargeable memory (2) is arranged at least in the vicinity of the encoder (1).

7) A measuring system as recited in claim 6, characterized in that the memory is located in the encoder (1).

8) A measuring system as recited in claim 6, characterized in that the memory (18) is located in the encoder side of a connector (10).

9) A measuring system as recited in one of the claims 1 to 8, characterized in that the memory (2,18) is charged by solar cells.

10) A measuring system as recited in one of the claims 1 to 8, characterized in that the memory (2, 18) is charged by means of electromagnetic waves.

11) A measuring system as recited in one of the claims 1 to 8, characterized in that the memory (2, 18) is charged by means of transformer coupling.

12) A measuring system as recited in one of the claims 1 to 8, characterized in that the memory (2, 18) is charged by means of motion induced field induction.

13) A measuring system as recited in one of the claims 1 to 8, characterized in that the memory (2, 18) is charged by the mains (14) and/or an external auxiliary power supply (13) via cables (9).

14) A measuring system as recited in claim 13, characterized in that the cables (9) are fiber optic cables at least on the side close to the encoder.

15) A measuring system as recited in one of the claims 1 to 14, characterized in that the signals are transferred between the encoder (1) and a system control (12) via radio waves by means of a transmitter/receiver (31, 33).

16) A measuring system as recited in claim 15, characterized in that there is a reduced radio transmission (20, 21) in battery operation when the voltage supply (19) fails.